

What is claimed is:

1           1.    An image transfer sheet, comprising:  
2           a support having a first and a second surface;  
3           optionally at least one barrier layer on said first  
4 surface of said support;  
5           a melt transfer layer on said optional at least one  
6 barrier layer; and  
7           an image receiving layer on said melt transfer layer;  
8 wherein  
9           said image receiving layer is capable of heat sealing an  
10 image upon the application of heat up to 220°C.

1           2.    The image transfer sheet according to claim 1,  
2 wherein said image receiving layer comprises a  
3 self-crosslinking polymer.

1           3.    The image transfer sheet according to claim 2,  
2 wherein said self-crosslinking polymer is a self-crosslinking  
3 ethylene vinyl acetate polymer.

1           4.    The image transfer sheet according to claim 2,  
2 wherein said image receiving layer further comprises at least  
3 one dye retention aid.

1           5.    The image transfer sheet according to claim 4,  
2 wherein said dye retention aid is a cationic polymer.

1           6.    The image transfer sheet according to claim 2,  
2 wherein said image receiving layer further comprises a  
3 cationic polymer, a nylon copolymer, silica and EVA.

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1        7.    The image transfer sheet according to claim 2,  
2 wherein said image receiving layer further comprises an  
3 opacifying agent.

1        8.    The image transfer sheet according to claim 1, which  
2 further comprises an antistatic layer on the second surface of  
3 said support sheet.

1        9.    The image transfer sheet according to claim 1,  
2 wherein said melt transfer layer is an extruded melt transfer  
3 layer.

1        10.   The image transfer sheet according to claim 1,  
2 wherein said melt transfer layer is a laminated melt transfer  
3 layer.

1        11.   The image transfer sheet according to claim 1,  
2 wherein said melt transfer layer comprises polyurethane.

1        12.   A kit comprising:  
2        an image transfer sheet according to claim 1; and  
3        optionally at least one of instructions for using said  
4 transfer sheet or a non-stick sheet.

1        13.   A process for preparing an image transfer sheet,  
2 comprising:  
3        providing a support having a first and a second surface;  
4        optionally applying at least one barrier layer to said  
5 first surface of said support;  
6        applying a melt transfer layer on top of said at least  
7 one barrier layer; and  
8        applying an image receiving layer on top of said melt  
9 transfer layer.

1        14. The process according to claim 13, wherein said melt  
2 transfer layer is applied by extrusion coating.

1        15. The process according to claim 13, wherein said melt  
2 transfer layer is applied by lamination.

1        16. A process for preparing an image transfer sheet,  
2 comprising:  
3        providing a support, which is optionally coated with a  
4 barrier layer;  
5        applying a melt transfer layer to one side of said  
6 optionally barrier-coated support; and  
7        applying an image receiving layer on top of said melt  
8 transfer layer.

1        17. A process for heat transferring an imaged area from  
2 a transfer sheet to a receptor element, comprising the steps:  
3        (a) providing an image transfer sheet according to claim  
4        1;  
5        (b) imaging the surface of said image receiving layer  
6        opposite said melt transfer layer;  
7        (c) peeling said imaged image receiving layer and said  
8        melt transfer layer away from said optionally  
9        barrier-coated support;  
10        (d) placing the imaged image receiving layer and melt  
11        transfer layer on top of a receptor element, imaged  
12        side facing away from the receptor element;  
13        (e) optionally placing a non-stick sheet on top of said  
14        imaged image receiving layer and melt transfer  
15        layer;  
16        (f) applying heat to the peeled image or to the top of  
17        the non-stick sheet, if present.

1        18. The process according to claim 17, wherein said heat  
2 is applied at a temperature from about 110 to 220 °C.

1        19. The process according to claim 17, wherein said heat  
2 is applied through said non-stick sheet to drive said imaged  
3 image receiving layer and melt transfer layer into said  
4 receptor element.

1        20. A composition comprising:  
2 at least one self-crosslinking polymer; and  
3 at least one dye retention aid.

1        21. The composition according to claim 20, wherein said  
2 self-crosslinking polymer is a self-crosslinking ethylene  
3 vinyl acetate polymer.

1        22. The composition according to claim 20, further  
2 comprising at least one thermoplastic binder other than the  
3 self-crosslinking polymer.

1        23. The composition according to claim 22, wherein said  
2 at least one thermoplastic binder is an ethylene vinyl acetate  
3 copolymer.

1        24. The composition according to claim 20, wherein said  
2 dye retention aid is a cationic polymer.

1        25. The composition according to claim 20, wherein said  
2 dye retention aid is at least one selected from the group  
3 consisting of a cationic polymer, a polyamide copolymer,  
4 silica and PVA.

1        26. The composition according to claim 20, wherein said  
2 self-crosslinking polymer is present in an amount of 15-40% by  
3 weight based upon the dry solids weight of the formulation.

1        27. The composition according to claim 24, wherein said  
2 cationic polymer is present in an amount of 1-10% by weight  
3 based upon the dry solids weight of the formulation.

1        28. The composition according to claim 20, wherein said  
2 dye retention aid is a polyamide copolymer present in an  
3 amount of 5-40% by weight based upon the dry solids weight of  
4 the formulation.

1        29. The composition according to claim 22, wherein said  
2 thermoplastic polymer other than the self-crosslinking polymer  
3 is present in an amount of 5-40% by weight based upon the dry  
4 solids weight of the formulation.

1        30. The composition according to claim 20, wherein said  
2 dye retention aid is silica present in an amount of 5-60% by  
3 weight based upon the dry solids weight of the formulation.

1        31. The composition according to claim 20, wherein said  
2 at least one dye retention aid is at least one selected from  
3 the group consisting of a cationic polymer, a polyamide  
4 copolymer, silica or PVA.

1        32. The composition according to claim 20, further  
2 comprising an opacifying agent.

1        33. The composition according to claim 20, comprising:  
2 15-40% by weight of at least one self-crosslinking  
3 polymer;

4        5-40% by weight of at least one thermoplastic polymer  
5 other than said self-crosslinking polymer;  
6        5-40% by weight of at least one polyamide copolymer;  
7        1-10% by weight of at least one cationic polymer; and  
8        5-60% by weight of silica,  
9 wherein said % by weight is based upon a 100% total dry weight  
10 of the composition.

1        34. The composition according to claim 33, comprising:  
2        25-35% by weight of at least one self-crosslinking  
3 polymer;  
4        10-30% by weight of at least one thermoplastic polymer  
5 other than said self-crosslinking polymer;  
6        10-30% by weight of at least one polyamide copolymer;  
7        1-4% by weight of at least one cationic polymer; and  
8        10-40% by weight of silica,  
9 wherein said % by weight is based upon a 100% total dry weight  
10 of the composition.

1        35. The image transfer sheet according to claim 1,  
2 further comprising at least one opaque layer between said melt  
3 transfer layer and said image receiving layer.

1        36. An image transfer sheet, comprising:  
2 a melt transfer layer;  
3 an image receiving layer; and  
4 at least one opaque layer between said melt transfer  
5 layer and said image receiving layer,  
6 said image receiving layer is capable of heat sealing an  
7 image upon the application of heat up to 220°C.

1        37. The image transfer sheet according to claim 36,  
2 wherein said image receiving layer comprises a  
3 self-crosslinking polymer.

1        38. The image transfer sheet according to claim 37,  
2 wherein said self-crosslinking polymer is a self-crosslinking  
3 ethylene vinyl acetate polymer.

1        39. The image transfer sheet according to claim 37,  
2 wherein said image receiving layer further comprises at least  
3 one dye retention aid.

1        40. The image transfer sheet according to claim 37,  
2 wherein said dye retention aid is cationic polymer.

1        41. The image transfer sheet according to claim 37,  
2 wherein said image receiving layer further comprises an  
3 opacifying agent.

1        42. The image transfer sheet according to claim 1,  
2 wherein said melt transfer layer comprises polyurethane.

1        43. A kit comprising:  
2 an image transfer sheet according to claim 36; and  
3 optionally at least one of instructions for using said  
4 transfer sheet or a non-stick sheet.